

***United States Court of Appeals  
for the Second Circuit***



**RESPONDENT'S  
BRIEF**





No. 74-1683

74-1683

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As

IN THE UNITED STATES COURT OF APPEALS  
FOR THE SECOND CIRCUIT

HOOKER CHEMICALS AND PLASTICS  
CORPORATION, STAUFFER CHEMICAL  
COMPANY, AND MONSANTO COMPANY,

Petitioners

v.

RUSSELL E. TRAIN, as Administrator of  
The Environmental Protection Agency,

Respondent

ON PETITION FOR REVIEW

BRIEF FOR RESPONDENT

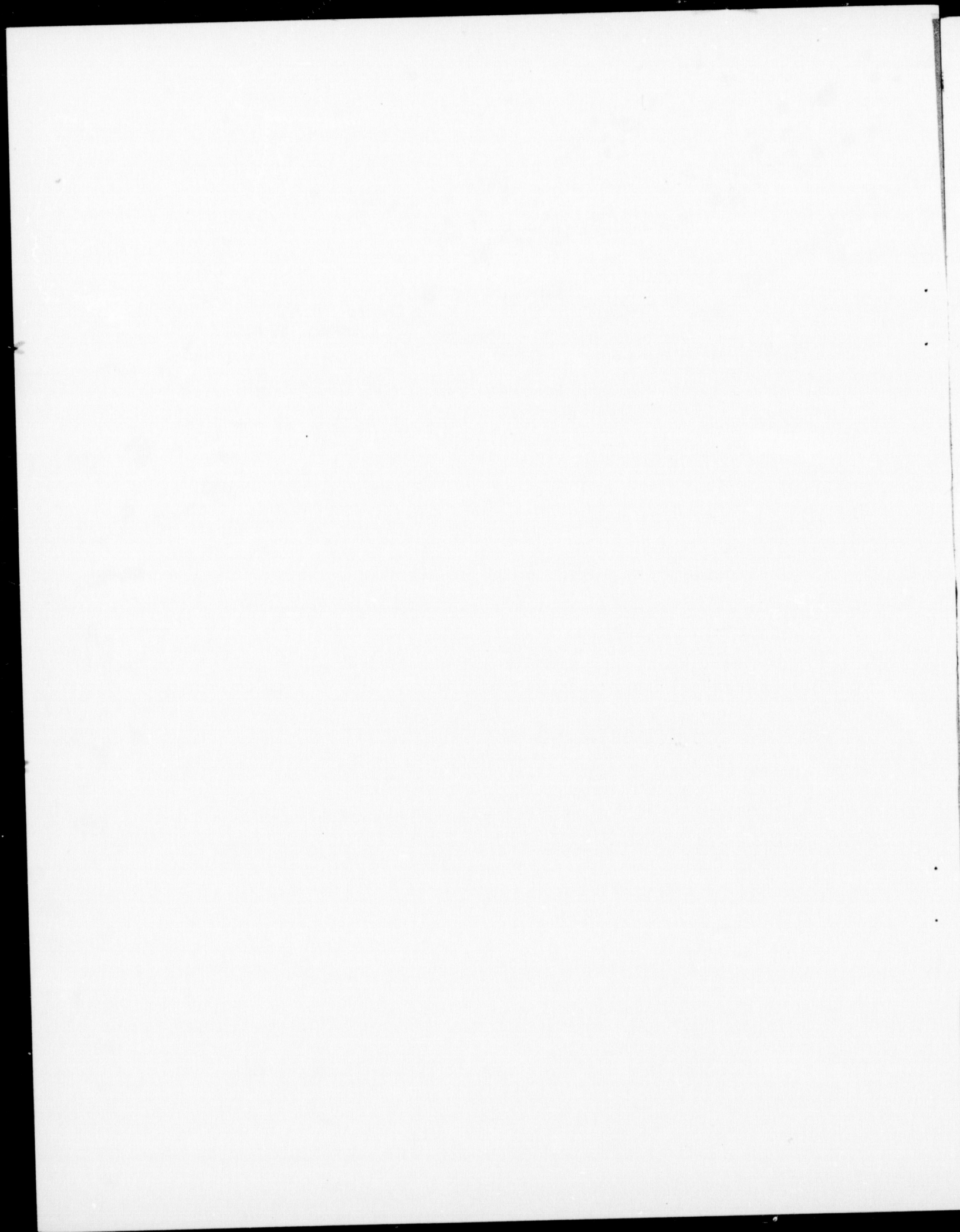
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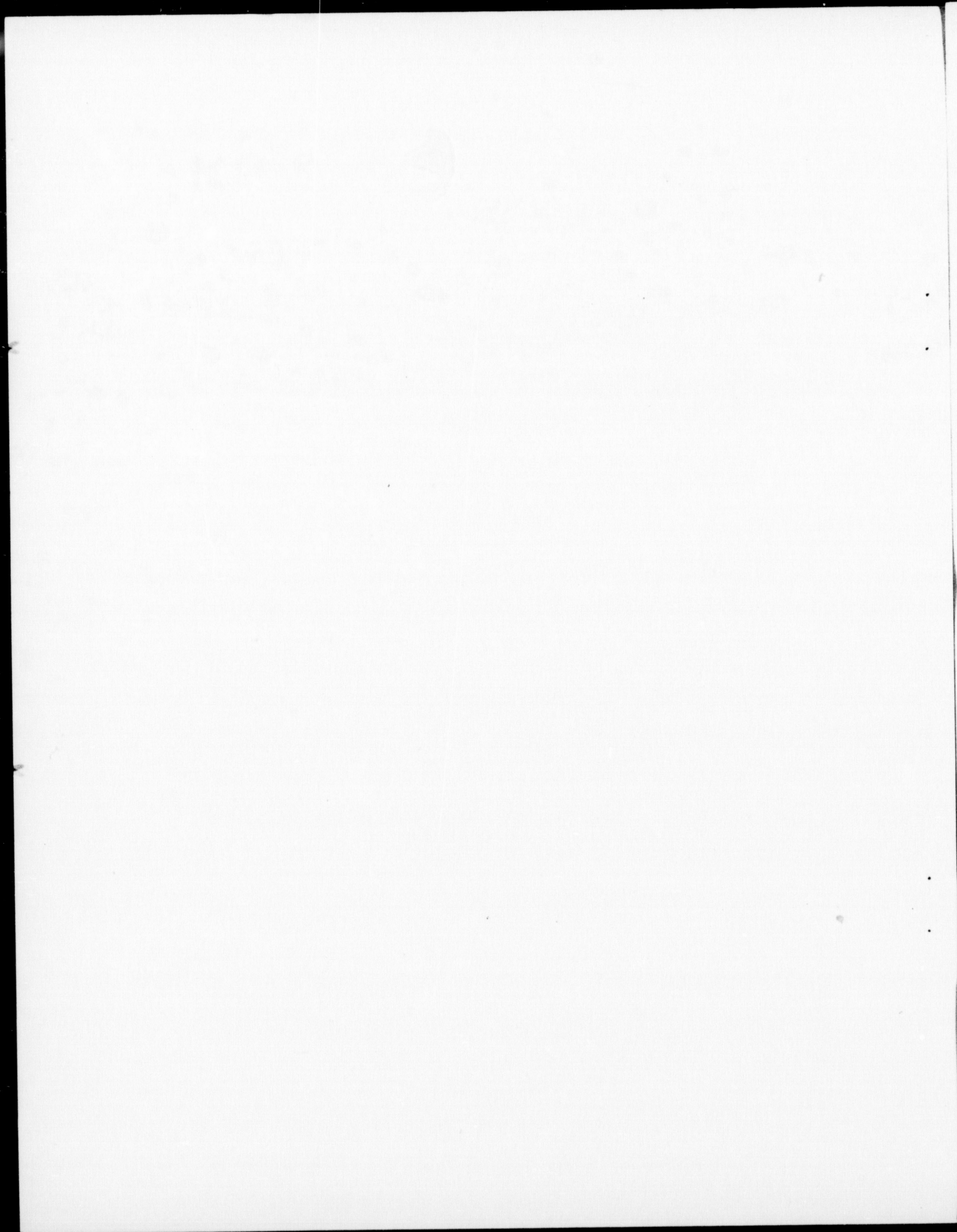
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ON PETITION FOR REVIEW

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BRIEF FOR RESPONDENT

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JURISDICTION

On February 20, 1974, respondent, Russell E. Train (the Administrator), promulgated national standards of performance for new sources in the phosphate manufacturing point source category under Section 306 of the Federal Water Pollution Control Act Amendments of 1972 (the FWPCA or the Act), 33 U.S.C. §1316. These regulations appear at 40 C.F.R. Part 422, 39 Fed. Reg. 6580 et seq., and in the administrative record, App. 1313-1319. The petition to review these regulations was filed May 20, 1974. This Court has jurisdiction under Section 509(b)(1) of the FWPCA, 33 U.S.C. §1369(b)(1).



#### STATUTES INVOLVED

Because of their length, the relevant portions of the Federal Water Pollution Control Act of 1972, 86 Stat. 816, 33 U.S.C. §1251 et seq., are reproduced as an appendix to this brief.

#### QUESTIONS PRESENTED

1. Whether the Environmental Protection Agency's Methodology for Developing New Source Standards of Performance is Harmonious with the Statutory Requirements.
2. Whether there is adequate evidence in the record to provide a basis for the Environmental Protection Agency's decision to promulgate the new source standards of performance challenged in this suit.



STATEMENT

On September 7, 1973, the Environmental Protection Agency published a notice of proposed rulemaking for effluent limitations guidelines, new source standards of performance and pretreatment standards for the phosphate manufacturing point source category. 38 Fed. Reg. 24470 et seq. (App. 1177-1183). This proposed rulemaking expressed the legal authority under which the rules were to be promulgated: Section 301(b) of the Federal Water Pollution Control Act for effluent limitations for existing point sources; Section 304(b) of the Act for guidelines for these effluent limitations; Section 306 of the Act for standards of performance for new sources; and Section 307(c) of the Act for pretreatment standards for new sources. 33 U.S.C. §§ 1311, 1314, 1316, and 1317. The proposal explained the methodology which had been followed and summarized the conclusions for the phosphate manufacturing industry. Three subcategories of the category were created. The manufacturing process for each subcategory was briefly sketched and the use of water and process wastes for each were described. The proposed regulations included an analysis of the control and treatment technology for the industry as well as an economic study of the cost of control of waste water pollutants. Standards of performance for new sources were specified for each subcategory, 40 C.F.R. §§ 422.15, 422.25, 422.35. The EPA concluded this proposal with an invitation to any interested persons to participate in the rulemaking by submitting written comments on all aspects of the proposed regulations within 30 days.

On February 20, 1974, the Administrator promulgated regulations stating the effluent limitations guidelines for existing sources and standards of performance for new sources and pretreatment standards for new sources for phosphate manufacturing point sources. 39 Fed. Reg. 6580 et seq. (App. 1313-1319). These promulgated regulations again cited Sections 301, 304 (b and c), 306 (b and c), and 307 of the 1972 Water Act as the statutory basis for the Administrator's action. The comments of all participants were summarized, together with the EPA's responses to each related group of comments. The preamble stated the revisions which had been made in the proposed regulations in light of the comments. The promulgated regulations for each subcategory were then set forth.

Within the 90 days allowed by Section 509 of the Act, 33 U.S.C. § 1369(b)(1), the parties to this suit (hereinafter Hooker) filed petitions for review of the Administrator's action in promulgating the standards of performance for the phosphate manufacturing point source category pursuant to Section 306, 33 U.S.C. § 1316. The present petitioners are also petitioners in Hooker Chemicals and Plastics Corp. v. Train, C.A. 2, No. 74-1687, involving the effluent limitations and guidelines promulgated for the phosphate manufacturing industry under Sections 301 and 304 of the Act.

Since the record and many of the issues in the new source cases here under consideration are identical to questions presented in the related petition involving the effluent limitations for existing sources, we respectfully refer this Court to the Government's brief in No. 74-1687 for a more detailed discussion of the structure of the Act and its legislative history.



ARGUMENT

I

THE AGENCY'S METHODOLOGY  
FOR DEVELOPING NEW SOURCE  
STANDARDS OF PERFORMANCE  
IS HARMONIOUS WITH THE  
STATUTORY REQUIREMENTS

Pursuant to Section 306(b)(1)(A) of the Act, the Administrator, January 16, 1973, published a list of categories of point sources for which new source standards were to be developed. This list included the phosphate manufacturing category as specifically required. 38 Fed. Reg. 1624.

On August 6, 1973, the Agency published an advance notice of the public review procedures which it intended to follow in developing the effluent limitations and guidelines for existing sources, under Sections 301 and 304 of the Act, and the new source performance standards under Section 306. 38 Fed. Reg. 21201 (App. 1011-1015). That notice explained the Agency's methodology in substantial detail. It also solicited comments on the draft reports on each of 30 industrial categories which had been previously distributed to all 50 States, the four territories, several public interest groups and 78 industry trade associations and companies, including petitioner Monsanto. Copies of the draft Development Document for the phosphate manufacturing category (App. 1-225) had been made available to the public in June 1973.

On September 7, 1973, after having reviewed and considered the recommendations of its consultant in light of public comments on the draft report, the Agency proposed effluent limitations and guidelines

for existing sources and standards of performance for new sources for the phosphate manufacturing industry (38 Fed. Reg. 24470 et seq; App. 1177-1183). The proposal was accompanied by a revised version of the Development Document (App. 1016-1176) and an Economic Analysis of the proposed regulations (App. 1184-1244).

The final regulations, revised once again on the basis of continuing internal review and public comment, were published on February 20, 1974 (39 Fed. Reg. 6580 et seq.; App. 1313-1319), in compliance with the statutory deadline for new source standards (Section 306(b)(1)(A) and (B)). A revised version of the technical Development Document was distributed shortly thereafter (App. 1644-to end). The final Economic Analysis has recently been made available and will be added to the administrative record.

A. The statutory framework. - Section 306(a)(1), 33 U.S.C. § 1316(a)(1), provides that standards of performance for new sources must reflect

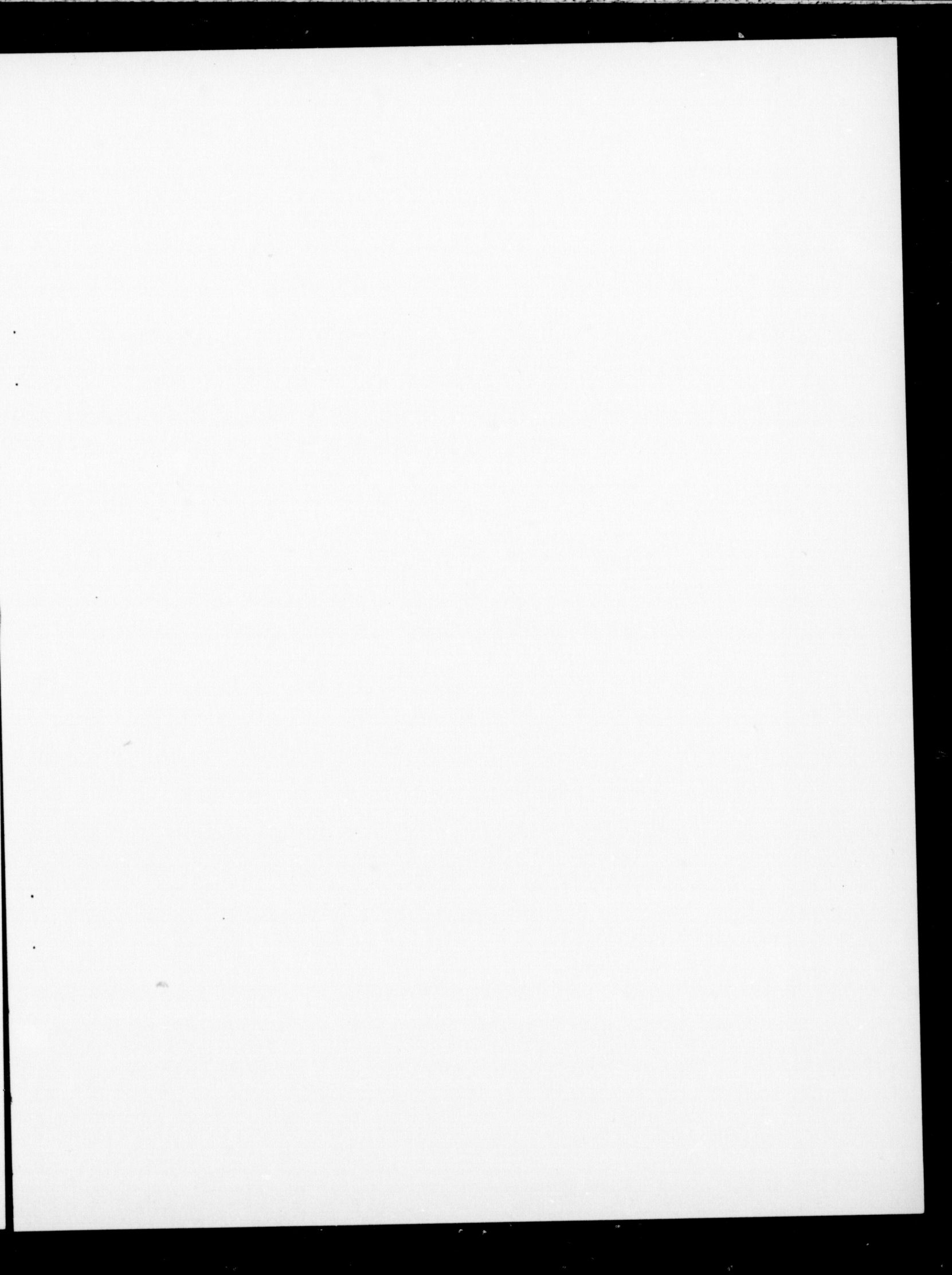
the greatest degree of effluent reduction which the Administrator determines to be available through application of the best available demonstrated control technology [BADT], processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants. (Emphasis added.)

Section 306(d) provides a unique degree of protection for plants which comply with these standards of performance. No more stringent standard may be imposed on them for the 10 years following their completion.<sup>1/</sup>

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<sup>1/</sup> Alternatively, the grace period provided by Section 306(d) extends through the period of depreciation or amortization of treatment facilities if the owner elects to take advantage of the accelerated depreciation provided by Internal Revenue Code Sections 167 and 169.





less than the best available control technology for the reduction or elimination of the discharge of pollutants and (2) the recognition of the significantly lower expense of attaining a given level of effluent control in a new facility as compared to the future cost of retrofitting an existing facility to meet straight water pollution control measures.<sup>6/</sup>

However, it was made clear that the Agency was not to dictate the specific technology but rather to specify standards which are consistent with existing technology or future technology which could reasonably be applied without imposing soaring costs. Thus the Conference report states (Leg. Hist. 311):

The Conference substitute on section 306 follows, for practicable purposes, the intent of both the Senate bill and House amendment. The Conference substitute requires establishment of a regulatory mechanism for new sources which anticipates not only that level of effluent reduction which can be achieved by the application of technology (including where practicable elimination of the discharge of pollutants), but also the achievement of levels of pollution control which are available through the use of improved production processes, taking into consideration the cost of achieving such effluent reduction. This does not mean that the Administrator is to determine the kind of production processes or the technology to be used by a new source. It does mean that the Administrator is required to establish standards of performance which reflect the levels of control achievable through improved production processes, and of process technique, etc., leaving to the individual new source the responsibility to achieve the level of performance by the application of whatever technique determined available and desirable to that individual owner or operator.

<sup>6/</sup> The Senate Committee also concluded that "maximum feasible control of new sources, at the time of their construction, is considered by the committee to be the most effective, and in the long run, the least expensive approach to pollution" (Leg. Hist. 1476).



This Congressional intent for the Administrator to look toward improved production processes when setting standards is apparent throughout the legislative history. See, statement of Sen. Muskie during consideration of the conference report, Leg. Hist. 172-173. As the Senate Report noted (Leg. Hist. 1476):

As used in this section, the term "available control technology" is intended to direct the Administrator to examine the degree of effluent reduction that has been or can be achieved through the application of technology which is available or normally can be made available. This does not mean that the technology must be in actual, routine use somewhere. Rather, it means that the technology must be available at a cost and at a time which the Administrator determines to be reasonable.

The implicit consideration of economic factors in determining whether technology is 'available' should not affect the usefulness of this section. The overriding purpose of this section would be to prevent new water pollution problems, and toward that end, maximum feasible control of new sources, at the time of their construction, is considered by the Committee to be the most effective and, in the long run, the least expensive approach to pollution control. (Emphasis added.)

In considering costs and availability of improved abatement technologies it is important to realize, as Congress did, that it is easier to incorporate an improved control technology when a plant is

in initial construction than it is to modify an existing plant. Consequently, the role of cost considerations in militating against a more stringent standard is less when a new source standard under Section 306 is in question than the role of costs would be when a 1983 effluent limitation under Section 301(b)(2)(A) (BAT-best available technology economically achievable) is in question. As Senator Muskie pointed out during consideration of the conference report (Leg. Hist. 172):

In order to assure that a reasonable cost test is met, the Conference agreement clarifies the fact that the Administrator must take into account the cost of compliance with any new source performance standards as applied to any category or class of new sources. The Conferees would expect that this cost test would be considerably more restrictive than the test which would be applied to 'best available technology' because pollution control alternatives are available to a new source which are not available to existing sources.

It may be that in most instances, the technology for elimination of discharge of pollutants from new sources can be achieved on a considerably more reasonable basis than for existing sources. The Conferees intend that this alternative be examined carefully and each determination of standards applicable to any category of new sources be periodically re-examined by the Administrator to insure that any new source constructed does the best that can be done in terms of performance. (Emphasis added.)



The difference in the cost determination for these two sections is that under Section 301 both internal and external costs of applying a technology are considered while under Section 306 only internal costs are used to weigh against the contemplated standard. See, statement of conferee, Rep. Wright, Leg. Hist. 259. Consequently, Section 306 standards were intended to be at least as stringent as Section 301(b)(2)(A) effluent limitations for 1983, if not more stringent. It is clear that Congress did not want to permit a polluter to be permitted a greater effluent discharge by closing an existing plant and opening a new plant. See, statement of Senator Muskie, Leg. Hist. 173; Conf. Report, Rpt. No. 92-1236, Leg. Hist. 311-312, which indicate that the requirement for a source to meet Section 306 standards where the plant is modified was deleted as redundant because the source would already be subject to the 1983 effluent limitations requiring BAT. See also, colloquy of Senators Muskie and Fannin, Leg. Hist. 1404-1405; statement of Rep. Clausen, Leg. Hist. 379.

Section 306 is specific about requiring a no discharge standard where practicable, Section 306(a)(1). Obviously the key is the meaning of the word practicable. Congressman Wright stated during the House consideration of the conference report (Leg. Hist. 259):

It is important that it be clearly understood that even though a standard of performance may permit no discharge of pollutants, such a standard is to be imposed only where it is 'practicable.' The conference report utilizes the term 'practicable' in section 301(b)(1)(A) in the

requirements for effluent limitations which must be achieved by July 1, 1977. There are set out in section 304(b)(1)(B), which relates to section 301(b)(1)(A), a number of factors relating to the assessment of 'best practicable control technology currently available.' This includes consideration of the total cost of application of technology in relation to the effluent reduction to be achieved from such application, nonwater quality environmental impact, and energy requirements. These same factors define the term 'practicable' in section 306 except the term 'total cost' includes internal and external costs in 301. In the context of section 306 it includes only the internal costs.

It is understood by the managers, however, that in the setting of the standards of performance permitting no discharge of pollutants, the Administrator would have to show that the water quality benefits to be achieved from no discharge would be commensurate with the cost of such a no discharge standard.

The managers expect the Administrator to be thorough in taking into consideration these costs and to meet the test of practicability before any standard of performance for new sources is promulgated with the requirement for no discharge.

While the Administrator is to be thorough before he imposes a no discharge requirement, he nevertheless is to make every effort to reach no discharge and to require the industry to seek and employ improved pollution control technologies. Certainly the Section 306 standard is to be at least as stringent as the Section 301(b)(2)(A) effluent limitation for 1983. The extent to which a technology must be demonstrated was explained in the House Report (Leg. Hist. 798):



The term 'best available demonstrated control technology, processes, operating methods' refers both to control technology applicable to the end of the pipe and to control technology and procedures and operating methods inside the production plant.

It must be recognized that if the process which is intended to be used would not have a discharge of pollutants, the Administrator would not be able to preclude the construction of such a plant.

It will be sufficient, for the purposes of setting the level of control under available technology, that there be one operating facility which demonstrates that the level can be achieved or that there is sufficient information and data from a relevant pilot plant or semi-works plant to provide the needed economic and technical justification for such a new source. (Emphasis added.)

B. EPA properly followed the statutory framework. - The new source standard of performance for each subcategory of the phosphate manufacturing point source category promulgated is no discharge of process waste water pollutants. 40 C.F.R. §§ 422.15, 422.25, 422.35, 39 Fed. Reg. 6583-6585, App. 1317-1319. In each instance the 1983 BAT effluent limitations also are no discharge. 40 C.F.R. §§ 422.13, 422.23, 422.33, 39 Fed. Reg. 6583-6586, App. 1317-1319. Hooker asserts that these new source standards were improperly promulgated by the Agency because an improper methodology was used. Specifically, Hooker argues that the Agency did not (1) relate costs to new plant construction,

- (2) identify the technology on which the standards were based, and
- (3) state the rationale for concluding that this technology is available and demonstrated.

There is no merit to these contentions. The Agency did evaluate the costs of applying different discharge limits to each segment of each subcategory. This material is summarized in the Development Document, App. 1752-1766, and particularly Tables 17 and 18, App. 1753-1754, and in the Economic Analysis. These cost calculations apply for new source standards as well as for BAT and BPT effluent guidelines. In each instance cost figures were available for the no discharge option and these appear in the tables. As will be discussed in the technical portions of this brief, in each instance where the Agency adheres to the new source standard promulgated, there already is a well-demonstrated utilization of the no discharge technology. As new plants could utilize this same technology to achieve a no discharge standard, the cost figures for existing plants can be used as cost figures for new plants.

Also, quite obviously, if existing plants were achieving no discharge, the technology then being employed by these existing plants is one technology which could be used to meet the new source standards. But EPA does not, and cannot by the Act, specify the technology to be used.<sup>7/</sup> Industry is to be left free to seek its own methods for achieving the new source standards, as the legislative

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<sup>7/</sup> The rationale which Hooker seeks is already stated in the Development Document particularly, sections VII - XI, App. 1726 - 1789.



history noted earlier in this brief makes clear. EPA has based its standards on exemplary plants presently using a technology which can accomplish no discharge of process waste water pollutants, entirely in keeping with Congressional intent. Hooker argues that further subcategories might be needed and relies on a passage of the legislative history which indicates that subcategorization "might be extensive" (Leg. Hist. 259). The Agency has already subcategorized the phosphate manufacturing category and broken two of these subcategories into several smaller units. The differentiation is presently extensive.

The Agency, in sum, followed proper procedures and, as we will point out, reached reasoned conclusions from the technical information. Hooker should not be allowed to obfuscate the urgently needed programs of the Act by attempting to substitute its judgment for that of the Agency, in whose expert hands Congress placed the administration of this new act. Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402, 416 (1971); Friends of the Earth v. U.S. Environmental Protection Agency, 499 F. 2d 1118, 1123 (C.A. 2, 1974); Essex Chemical Corp. v. Ruckelshaus, 486 F. 2d 427, 434 (C.A. D.C. 1973).

ARGUMENT

II

THE NEW SOURCE PERFORMANCE  
STANDARDS FOR ELEMENTAL PHOSPHORUS  
AND PHOSPHORUS PENTASULFIDE  
ARE VALID AND SUPPORTED BY  
THE RECORD; THE NEW SOURCE  
PERFORMANCE STANDARDS FOR  
PHOSPHORUS TRICHLORIDE,  
PHOSPHORUS OXYCHLORIDE,  
FOOD GRADE SODIUM TRIPOLYPHOSPHATE,  
AND FOOD GRADE CALCIUM PHOSPHATE  
WILL BE RECONSIDERED BY THE AGENCY

A. Introduction - Judicial Review

Hooker states (Br. 12) that EPA has failed to provide a reasoned basis for its regulations for standards of performance for new sources. The Supreme Court in Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402, 416 (1971), laid down the norm for judicial review of the type of rulemaking here challenged. The Court repeated the test stated in the Administrative Procedure Act, 5 U.S.C. § 706(2)(A), which requires a finding that the actual agency choice was not "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." The Court explained this test in somewhat fuller terms: "To make this finding the court must consider whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment." As the Supreme Court emphasized in Overton Park, supra, 401 U.S. at 416: "The court is not empowered to substitute its judgment for that of the agency." The Court reiterated this point in Camp v. Pitts, 411 U.S. 138, 142 (1973), and further observed that in applying the arbitrary and capricious test, "the focal point for



judicial review should be the administrative record already in existence, not some new record made initially in the reviewing court."

In Appalachian Power Co., et al. v. Environmental Protection Agency, 477 F. 2d 495, 505 (C.A. 4, 1973) the Court construed the scope of judicial review under the Clean Air Act Amendments of 1970, 84 Stat. 1676, 42 U.S.C. § 1857, a statute similar to that at issue here. The Court repeated the test as articulated in Overton Park, and added that, to perform its reviewing function, "the Court must have before it the record of expert views and opinions, the technological data and other relevant material \* \* \* on which the Administrator himself acted." 477 F. 2d at 507. That full record is before this Court.<sup>8/</sup>

The scope of review of agency decisions was recently discussed in another suit challenging EPA action. In State of Texas, et al. v. Environmental Protection Agency (C.A. 5, No. 73-3540, August 7, 1974) not yet reported, the court discussed judicial review of agency action which, like the present case, was not based on an adjudicatory hearing nor on the rulemaking provisions of the APA, 5 U.S.C. § 553.<sup>9/</sup> The

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<sup>8/</sup> That record is comprised of over 1640 pages of documentation.

<sup>9/</sup> The Fifth Circuit discussed in a footnote (slip op. 6711, note 7) the reason why the arbitrary and capricious test was there applicable. The reasoning applies equally here:

The rulemaking before us is pursuant to the Clean Air Act Amendments of 1970, 42 U.S.C.A. § 1857c-5 (1974 Supp.). Were it APA § 553 rulemaking, the applicable standard would be that of substantial evidence. See 5 U.S.C.A. § 706(2)(E).

court repeated the arbitrary and capricious standard of Overton Park and added a caveat equally applicable to this case (slip op. 6712-6713):

In applying this standard, our review must be based not only upon the agency's explication of 'its course of inquiry; its analysis and its reasoning,' Appalachian Power Co. v. EPA, supra, 477 F.2d at 507; Ely v. Velde, 4 Cir., 1971, 451 F.2d 1130, 1138-1139, but also upon the full record before the agency. Overton Park, supra, 401 U.S. at 419, 91 S.Ct. at 825, 28 L.Ed. 2d at 155. Only by our own study of the record can we resolve the factual disputes between the parties, much less hope to 'engage in a substantial inquiry' into the agency's action.

We do add a caveat, however, while the Overton Park mandate does require that we base our review on the entire record before the agency, we do not interpret it to require that we plunge into the record unaided by the parties. The record's length is on the order of 10,000 pages, and it is both technical and poorly organized. Lest we make of this case a career, we must generally restrict our consideration to the parties' specific citations.

The EPA's answers to the objections to the standards raised by Hooker will be answered by a full analysis, based on the record, of the rationale for EPA decision on each point.

B. The New Source Performance Standard for Elemental Phosphorus Plants is Clearly Supported by the Record.

The Agency's determination of the new source performance standard for elemental phosphorus plants is "no discharge of process wastewater pollutants." 40 C.F.R. § 422.16, App. 1317. This determination was substantially premised on the exemplary and exceedingly



feasible accomplishment of total recycle of all water at the Hooker Chemical Plant in Columbia, Tennessee. However, using existing technology from one facility for development of the new source standard shows no arbitrariness on the part of the Agency.

As set out above in Argument I and as described in the Development Document, Section XI, the level of treatment described as new source performance standards is based on the following: New source performance standards are to be evaluated by adding to the consideration underlying the identification of best available technology economically achievable<sup>10/</sup> a determination of what higher levels of pollution control are available through the use of improved production process and/or treatment techniques. The end result of the analysis identifies effluent standards which would reflect levels of control achievable through the use of improved production processes (as well as control technology), rather than prescribing a particular type of process or technology which must be employed. New source performance standards are to reflect whether a standard permitting no discharge of pollutants is practicable.

The technology need not be in actual, routine use at any plant. The technology is to be available at a cost and time which the Administrator determines to be reasonable. (Leg. Hist. 1476.) In

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<sup>10/</sup> Section X of the Development Document (App. 1780-1782) sets forth the effluent reduction attainable of no-discharge of process wastewater through the application of best available technology economically achievable (BAT). The validity of the BAT effluent guideline is discussed in the Government's brief in No. 74-1687.

making that determination, the Administrator may look at an existing plant which demonstrates that the level can be achieved or to relevant pilot plant and semi-works levels. (Leg. Hist. 798.)<sup>11/</sup>

The Agency has developed a better case than it need develop under the requirements of the Act for setting the effluent reduction representing new source performance standards, since the Hooker Plant is employing control technology at the present time, for which no modifications to a process or control technique are necessary, that achieves no-discharge of process wastewater.<sup>12/</sup>

Hooker's comments regarding the Agency's reliance or non-reliance on the technology applied at the TVA's Muscle Shoals Plant is unnecessary. First, the Agency need not rely on total recycle at an existing elemental phosphorus plant much less rely on two such exemplary plants. Second, after the comment period on the proposed regulation, the Agency eliminated reference to the TVA plant as representing a no-discharge plant in view of the lack of a thorough survey of the TVA plant.<sup>13/</sup>

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<sup>11/</sup> The plant itself need not be attaining the prescribed level. If the plant has a treatment system which may be modified to attain the level with technically and economically feasible in-process modifications, it may serve as the basis for the standard.

<sup>12/</sup> Industry itself seems to have thought this level of control was practiced in more than the one Hooker plant. In commenting on the September 7, 1973 proposed regulations, Monsanto believed that even its two plants, at Columbia, Tennessee and Soda Springs, Idaho totally recycled. Contrary to the Agency's statement in the Development Document, so the comment goes, both these plants totally recycle the streams referred to. App. 1295.

<sup>13/</sup> See the discussion of this issue in the Government's brief in No. 74-1687.



(1) EPA Thoroughly Evaluated the Effects of Climatic Conditions in Developing the New Source Performance Standard and Concluded that Technology is Available to Surmont Such Problems.

The argument is a simplistic one that the Agency's analysis of the new source performance standard of no discharge was in terms of deleting the problems of cold weather climates. (Hooker's Br. 24-26.) Section X of the Development Document (App. 1780-1782) discusses the treatment processes at the Columbia, Tennessee, Hooker Plant and concludes that a no-discharge requirement is justified for the phosphorus production subcategory. Section XI applies this conclusion to the new source performance standard. No recitation of climatic conditions is provided in the discussion of the Hooker plant. A review of earlier sections of the Development Document where the Hooker Plant and its recycle technology are discussed shows that the problems of weather effects are thoroughly analyzed. (App. 1771.)

In analyzing these problems, the Agency did not conclude that total recycle of process water was impossible. The Agency stated that severe or extended cold weather problems made total recycle "difficult." (App. 1771.) It should also be remembered that not only has the Agency concluded that total recycle is feasible in cold weather circumstances for the new source performance standard as well as for the 1983 effluent requirement, but in fact the Agency initially proposed a no-discharge requirement for the 1977 guideline in spite of cold weather problems because:

[cold-weather] difficulties are formidable but not unyielding to practicable, currently available technology. Draft Development Document, App. 131, 133.

In other words, the technology which will meet the problem of freezing pipes, etc., is commonly, readily available today, not technology that is in a pilot plant stage. The Development Document (App. 1771) clearly points out available technology that is universally demonstrated, such as buried water mains and enclosed, heated pumping stations for protection against freezing of return water piping and pumping. It is literally unbelievable that Hooker considers protection against freezing of water supply equipment an insurmountable technological barrier. This is 1974, not 1874. "Settling ponds may freeze," EPA points out in the Development Document (App. 1771). The intent of this statement, of course, is to point out that proper design and operation of settling ponds is necessary to prevent freezing. Only an intentional mis-reading by the Petitioners could have resulted in their implying that EPA states that freezing is inevitable. The long-standing and aptly-demonstrated technologies for preventing freezing are:

- (a) Deep-enough ponds do not freeze solid.
- (b) Addition of sufficient heat prevents freezing. Enlightened use may be made of the large quantity of CO fuel which is wasted at every phosphorus plant (App. 1664, 1665, 1669).
- (c) Enclosed and protected mechanical clarifiers (as opposed to ponds), widely used in the chemicals industry and in municipal and domestic wastewater treatment (App. 1741) would prevent freezing.



(d) A judicious design which combines shallow, cheap ponds (which may freeze solid) with sufficient protected or heated ponds or clarifiers to ensure a return water source in extreme cold would be a logical technology.

Hooker claims that the effects of severe climate were acknowledged from the beginning. (Hooker's Br. 24.) The only point made in the portion of the record to which Hooker refers is that phosphorus production plants are located in different areas of the country. (App. 1207.) The assertion in the information supplied by the management of the Monsanto Soda Springs Plant (App. 630) that technology has not been developed to operate under severe winter conditions should, we suggest, be weighed against the recitations in the record, set out above, of various presently available means to operate a recycle system in cold weather. Hooker failed to quote an additional statement in the information on the Monsanto Plant that "Recycle and cooling water streams would be expensive", not impossible. (App. 630.)

The implication is that, because "uncoupling" a frozen system using fresh water requires sufficient land areas (Hooker's Br., p. 25), the new source performance standard is arbitrary and capricious. If indeed more land is required for such a technology and land is unavailable, a facility could employ others of the many suggested methods of keeping a system unfrozen. These arguments concerning land availability and engineering of a recycle system in cold climates are especially weak in regard to the new source performance standards

applicable to totally new plants. Factors such as severely-cold climates and limited land are considerations to be made in locating a new plant. Moreover, from the initial planning stage consideration should be given to environmentally acceptable design choices with total recycle built-in.

(2) The Technology Representing the New Source Performance Standard is Clearly Identified in the Record and is Directly Applicable to New Phosphorus Plants.

Hooker argues that the Agency did not thoroughly analyze the recycle and "no-discharge" technology at the exemplary Hooker Plant. In addition to the various discussions of this facility in the Development Document (e.g., App. 1770, 1771, 1781), the record upon which the Development Document was based concerning the Hooker Plant is substantial and unequivocal regarding the total recycle practiced at this elemental phosphorus plant.

In a trip report filed by EPA's consultant for a plant visit made 3/14/73, the Hooker Plant is described:

The Columbia plant waste system is a multiple pond arrangement operating as a closed loop. Water from the final pond is recycled to the supply pond. Phosphorus containing streams are sent to one pond series and fluoride wastes to another. Eventually they all come together and go through a lime slurry treatment station into a common system. App. 378.

The standard "Plant Waste Analysis" report completed jointly, during a March, 1973 visit, by EPA's consultant and by Hooker plant personnel contains many direct questions and answers which explain precisely how the



Hooker wastewater system functions<sup>14/</sup> (App. 394-427). In addition, a March, 1973 "Plant Water Analysis" which Hooker Company submitted to EPA's consultant, described the system employed at that plant. (App. 385.) The record clearly provides sufficient information.

Hooker's claim that the Hooker Plant is not a total recycle plant is completely unfounded. The citation to a statement in the record that Hooker recycles only 80 to 95 percent of its effluent is an attempt by Hooker to be misleading. (Hooker's Br. 49.) The reference to 80-95% recycle (App. 404) refers to the fact that Hooker only recycles that percentage of effluent since the remaining 5-20% is lost in the cooling and scrubbing water loops, i.e., the system operates with a deficit; the plant does not discharge any effluent. (App. 385, 404.)

It is unclear how petitioners can now argue that the Columbia Hooker Plant is not a total recycle plant since the management of Hooker in commenting on the regulations stated in a letter to the Agency that except for times of heavy rainfall "total recycle is practiced." (App. 1271.)

14/ A summary of those questions and answers follows:

Q: Final (Wastewater) Stream Disposal?

A: Stream No. 1 - To lower pond and recycle.  
Stream No. 2 - To lime station, then to upper pond.  
Stream No. 3 - To lime station and upper pond.

Q: Performance of Treatment Methods?

A: Closed System in 1965, worked satisfactorily, rain overflows sometimes occur.

Q: Is additional recycling of effluent streams practicable?

A: Gone all the way now.

Since Hooker has no solid basis to attack the new source performance standard on the grounds that cold weather creates an impossibility of total recycle, it argues that the technology for the requirement of no-discharge of process wastewater is solely dependent on land availability since the system at the exemplary Hooker Plant functions because of evaporation. The record obviously shows that the Hooker closed loop system involves a series of ponds. (App. 378.) However, Hooker has pointed to no place in the record to establish that evaporation is the reason the system works. Two facts from the record would indeed point away from an argument that evaporation allows the system to function. First, the Hooker plant is in a humid southern area, the worst case from the standpoint of rainfall v. evaporation. (App. 411, 1271.) Second, the recirculating water system runs at such a significant deficit that fresh make-up water is regularly supplied. (App. 404, see also App. 336, 354, 357, 358.) Land is not the critical factor in the technology applied.

Hooker has presented no reference to the record which would contradict the Agency's finding that "[b]ecause phosphates and fluorides are removed by lime treatment and sedimentation, there is no requirement to bleed off water for the control of dissolved solids." (App. 1781.) The footnoted discussion of removal of chlorides is not documented. The reference to concentrations of chloride at the Hooker Plant provides no support to Hooker's view since the Hooker Plant did not complain that these concentrations prevented recycle.<sup>15/</sup>

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<sup>15/</sup> Nowhere in the record does any reference to percolation losses appear, and such reference is conspicuously absent from the submission by the Hooker Company during the rule-making proceeding.



Hooker admits that the two Monsanto plants now have substantial recycle (97% to 99+%). (App. 1771.) Yet there is no reason provided in the record that a new plant designed even as the two Monsanto plants would differ from that at the Columbia Hooker Plant to such an extent that "the effluent from technology 'A' [the level achieved by Monsanto at Columbia] is [not] suitable for process reuse...." (Hooker's Br. 50, App. 1757.) Moreover, the industry has the opportunity in designing a new plant to pattern such plants after the exemplary Hooker plant. Based upon the information available to the Agency that a phosphorus production plant does recycle its waste streams and in the absence of evidence that new plants could not re-use their waste streams, the Agency's determination of a no discharge of process wastewater limit is completely valid.

In fact, this technology is so feasible and reasonable that the industry itself has stated that the total recycle system at Hooker could even be improved upon if the system were started over again. (App. 414.)

(3) EPA Will Make an Adjustment in the Effluent Guidelines to Allow Discharges Attributable to Rainfall.

The Environmental Protection Agency has been faced with a tremendous task in implementing the provisions of the 1972 Federal Water Pollution Control Act. The development of effluent limitations and guidelines for the 30 plus industrial categories included in the first phase of effluent guidelines issued by the Agency required intensive, thorough analysis in a remarkably short time period. Under such pressures, certain unintended inconsistencies between guidelines for various industrial categories were created.

The record in the phosphate manufacturing point source category shows that the Agency was aware of the problem of overflow during excess rainfall. (App. 1781.) The problem of discharges during abnormally high rainfall is not limited to the industry here represented. The Agency has included a provision for discharges during excess precipitation in other effluent limitation guidelines. In recognition of the real problem caused by excess rainfall and in order for the Agency to exercise a fair, even hand over all industries subject to new source performance standards, the Agency will propose an amendment to the regulations governing the phosphate manufacturing point source category. The amendment will make an allowance as rapidly as the administrative process allows for discharges attributable to inordinate periods of precipitation.

(4) EPA Gave Proper Consideration to Cost of Pollution Control at Elemental Phosphorus Plants.

Hooker's arguments center on "cost estimates." To put the issue in proper perspective it is important to review the undisputed analysis, in the record, of the economic impact of pollution abatement in these plants. In the Agency designated "Economic Analysis of Proposed Effluent Guidelines" (App. 1184-1244), the conclusion is drawn that the price increases that would result from passing on the cost of pollution control are of such small magnitude that there would be no significant impact on profitability. (App. 1240.) Hooker has not disputed the financial profile in the "Economic Analysis" that the elemental phosphorus industry is in a satisfactory economic posture. (App. 1208, 1211.) Phosphorus prices have risen. (App. 1211.) Nor is there



contention with the Agency's conclusion that reducing the harmful pollutants discharged by the phosphorus production industry, such as phosphates, fluoride, chloride, arsenic, vanadium, cadmium and radioactivity (App. 67) justify the cost of pollution control, which represents a small percentage of the total capital investment in the industry. Preamble to Final Regulations, 40 C.F.R., Part 422, 39 F.R. 6582, Feb. 20, 1974, App. 1316.

EPA's estimate of cost for total recycle was for a representative plant, i.e., the typical plant, not the extreme case where freezing is a severe problem. (Supplement A, App. 202-205; Development Document, 1757.) However, the costs analysis did recognize that the costs for achieving effluent reduction would vary considerably for any specific plant, because of many factors including climatic factors. (Supplement A, App. 202-203.) Phosphorus production plants are not typically located in areas of severe freezing. (App. 1207.) New plants may be located in areas not subject to extreme weather conditions.

Hooker's brief points to only one instance in which industry commented that the Agency's estimate of cost was low. (App. 1361, 1368.) Monsanto's estimate of costs for ladle handling of slag (App. 1361 and 1368) at \$2.4 M is not aptly compared to the Agency's estimate of \$500,000 for attainment of complete recycle or treatment alternate B. (App. 1755.) The Development Document (App. 1755, 1756) projects a capital cost of \$500,000 and an annual operating cost of \$228,000 to achieve total recycle in a representative elemental phosphorus plant that already has achieved no discharge of phossy water, evaporation

of some other process water, and lime treatment sedimentation on treatment alternative A. (App. 1755.) This baseline level is approximately the level achieved by the two Monsanto plants; (App. 1771). The above costs are estimated to bring the baseline representative plant up to the level typified by the Hooker Columbia plant and may readily be applied to new plants.

The contractor for the "Economic Analysis" did not indicate a suspicion that the cost were low. (Hooker's Br. p. 52.) The contractor noted that "producers felt that the costs presented in the effluent guideline development document were unrealistically low...." (App. 1243.) The economic analysis document merely notes that it is not within the scope of the report to evaluate the validity of the estimates of investment and operating costs. (App. 1243.)

Even assuming both Monsanto's and EPA's estimations are of treatment to attain a level of no discharge of process wastewater, information from the Hooker total recycle plant is very close to EPA's figures for capital investment and operating costs. (App. 428.) The Hooker system provides costs from actual experience as compared to the Monsanto projection.

In addition, this one submission of a higher cost estimate from Monsanto should be compared to the Agency's supporting data. EPA obtained cost data from engineering firms, from equipment suppliers, and from the literature. (App. 205, e.g., Section VIII, Draft Development Document, App. 114-123.) The Agency's cost estimates were in part based upon information directly obtained from industry.



The "Plant Waste Analysis" for the Monsanto Soda Springs plant (App. 627) indicates capital costs and operating costs for a settling pond are insignificant.

The costs of achieving the required effluent reduction were extensively considered. That the Agency's cost estimates do not coincide with estimates of others is not an unexpected situation, considering all of the diverse factors and assumptions that may significantly influence the estimated cost. (E.g., App. 1208-1211, 1753 and 1756.) The Development Document contains cost estimates for the following treatment measures, in Section VIII (App. 1753-1767):

- Dry Dust Collection
- Neutralization and Precipitation Tanks
- Treatment of Arsenic-Rich Residues
- Settling Ponds
- Clarifiers and Thickeners
- Vacuum Filtration and Centrifugation
- Land filling of Solid Wastes
- Demineralization and Reverse Osmosis
- Solar Evaporation Ponds
- Single-Effect and Multiple-Effect Evaporators

Hooker's assertion that the Agency had failed to meet its statutory obligations by not finalizing the Economic Analysis document is frivolous. The reason the Agency felt it was unnecessary to make any significant changes in the Economic Analysis of the proposed effluent guidelines and to treat the Economic Analysis as a finalized document throughout the promulgation period, is clearly stated in the Preamble to the promulgated Effluent Limitations Guidelines. Any changes made in the final guidelines or any changes made in cost estimates in the final Development Document did not affect the conclusions of the economic impact

study, since cost increases were minimal and changes to proposed regulations did not affect the initial economic analysis. (App. 1315, 1316.) The final "Economic Analysis of the Effluent Guidelines" has issued, dated November 1974. This document, which contains only minor changes from the Economic Analysis of the proposed regulations will be added as a supplement to the certified record. The finalized version notes A. D. Little's confirmation from major producers that there are variations in costs to achieve zero discharge for individual plants which had already been acknowledged in the development document. A. D. Little concludes:

If such variations from the costs presented in the effluent guideline development document are significant for individual plants, then the impact of water pollution control costs to achieve discharge may be significantly different than those presented in this analysis.

The impact of pollution control may be significantly different but the general conclusion still stands that pollution control is reasonable. No producers demonstrated that economic impact would be substantial or destructive.

C. The Agency will Modify the New Source Performance Standard for Phosphorus Trichloride and Phosphorus Oxychloride. - The Agency does not concede that there is "no basis" in the record for applying a technology to the subcategory which would result in no discharge of process wastewater pollutants. At length in the Development Document (App. 1782-1785), the Agency provides a reasoned elaboration of



the technology which is undeniably available for reduction of wastewater and ultimate evaporation. The Agency also believes that such technology is economically feasible. (App. 1784.) In retrospect with a further period of review (after the initial condensed rule-making period), the Agency is disposed to re-evaluate its determination that a limitation of no discharge of process wastewater is applicable to new point sources for the subcategory of phosphorus trichloride and phosphorus oxychloride. The Agency has already recognized that problems of excess power usage might be a problem. (Preamble, Final Effluent Guidelines, 39 F.R. 1315, Feb. 20, 1974.) The last step of evaporation for the purpose of preventing a discharge of dissolved chloride may not be justified. The Agency, therefore intends to issue an amendment to the new source performance standards for phosphorus trichloride and phosphorus oxychloride allowing a discharge but still aiming for the 1985 goal of elimination of pollutant discharges.

D. The New Source Performance Standard for Phosphorus Pentasulfide Plants is Valid. - The new source performance standard is no discharge of process wastewater pollutants (40 C.F.R. § 422.25, App. 1318). The Agency's Development Document and even petitioner's brief are witness to the fact that the Agency explored many treatment alternatives by which this industry could achieve no discharge of wastewater pollutants.

(1) Technology to Achieve No Discharge Has Been Demonstrated and is Available.

For the phosphorus pentasulfide industry, alternatives for treatment

are no additional treatment; reduction of wastewater discharge by recycle of its scrubber water; no discharge of wastewater achieved by total recycle; and no discharge of wastewater achieved by the use of inert-atmosphere casting of the phosphorus pentasulfide. (App. 1751, 1774, 1781.) The Agency is not authorized nor has attempted to dictate which treatment methodology is to be applied. What the record shows is that the Agency followed the methodology which it claimed it would follow in establishing the effluent guidelines. The full range of control and treatment technologies existing within each subcategory was examined and each distinct control and treatment technology, including both in-plant and end of process technologies, which are in existence or capable of being designed for each subcategory, were identified. (App. 7.) The establishment of no-discharge limitation based on the technologies of inert casting and total recycle are perfectly consistent with the criteria upon which the Agency is to establish new source performance standards. This standard places equal emphasis on in-plant control, treatment techniques employed at the end of the production line and improved production processes. Therefore, it is not necessary for the Agency to have found either treatment alternative of inert casting or total recycle in operation at a facility to support a no-discharge standard based on these technologies. It should be emphasized that new point sources can be designed incorporating either of these pollution control alternatives or any other control method.



If the Agency had been required to base the effluent limitations on technology in an existing plant, this would have been difficult in view of the status of the phosphorus pentasulfide industry. Existing plants which produce this product have rudimentary pollution control devices. (App. 444, 1651.) A typical plant has not yet instituted any treatment of acidic wastes. (App. 1757.) The plants which were investigated in the field study did not have any treatment systems for such wastes in operation. (App. 434, 444.) Obviously, the Agency is not precluded from establishing a no-discharge standard based on available technology because that industry has failed to utilize that available technology. As Hooker's brief points out (Brief, p. 45), their Columbus, Mississippi plant is only now installing a scrubber system, a technology which has been widely available. (App. 440.) In addition, the sampling base for analysis of treatment technology was small. Only five phosphorus pentasulfide plants are in this country. (App. 1661.) Stauffer Chemical Company, which is one of these producers, would not cooperate with the Agency's contractor in the development of the effluent guidelines. That company asserted that none of its plants in this category employed control technology which might even be considered notable. If the record is lacking in any collaboration it is due to the lack of cooperation from the industry.

However, the record does support the regulations which are based on adequate documentation and review of the technology that is readily applied to attain the no-discharge new source performance standard.

(2) Inert-Atmosphere or Vacuum Casting is Available and Feasible as a Basis for the No Discharge Requirement for New Sources.

Inert-atmosphere casting of phosphorus pentasulfide is offered as a treatment technique (App. 1751, 1760) because it is so readily available as a demonstrated in-process technique leading to the elimination of pollutant wastewater. (App. 1050, 1051.) If there is a lack of extensive discussion of this treatment technique it is simply because it is so widely available. The technology of vacuum casting is used in the same facility where molten phosphorus pentasulfide is cast. A description of the phosphorus pentasulfide industry provides that "batches from multiple reactors are forced into an electrically heated...holding tank by nitrogen pressure.... The liquid  $P_2S_5$  that is to be purified may be vacuumed distilled...in a continuous system." (App. 1677; see also App. 1678.) The synthesis of  $P_2S_5$  must be performed completely in the absence of air and water in whole or in part. (App. 1691.) The Agency's suggestion that an inert-atmosphere of nitrogen be used to eliminate water usage is not a trip in fantasy but a trip in the ordinary routine. "Comparatively pure nitrogen is one that is relatively cheap. It finds a number of industrial applications because of two important properties, a low boiling point...and its inertness...." R.E. Kirk and D.F. Othmer, Encyclopedia of Chemical Technology, Interscience, N.Y., 2d ed., Vol. 13, at 861 (1966); App. 1792, References, #12. This chemical technology handbook further provides that in the chemical industry "nitrogen is used advantageously in a number of chemical processes to exclude oxygen or



moisture or as a diluent." This reference extensively describes how nitrogen as an inert-atmosphere is widely used and has been used for a number of years. If that is not a sufficient guide to Hooker as to the meaning of "various state-of-the-art techniques available", (Development Document, App. 1751) the Encyclopedia also discusses the use of nitrogen and other inert gases in the handling of sodium. Id. at 439-499, Vol. 18; Development Document, App. 1792. If the Development Document is lacking in any extensive discussion of the use of an inert-atmosphere it is only because it is an obvious technology.

Hooker attempts to obscure the real issue that the industry is far behind in treating pollution problems, by urging that the Agency's suggested use of vacuum casting rests on the premise that the sole source of process water is scrubber liquor. (Hooker's Brief, 46, Development Document, App. 1774.) Hooker has completely misread the statement in the Development Document that the sole source of process waters is scrubber water. The Agency did, in fact, extensively explore other water uses in the process and other sources of effluent. The Development Document discusses the use of washwater for reaction vessels and shipping containers. (App. 1660, 1696, 1732.) EPA's own description of process noted the dust and fumes from crushing and product purification operations. (Development Document, App. 1677.) What petitioner ignores is the answer offered to eliminate or control these effluents. The Development Document refers again and again to the use of dry dust collection.

A drastic reduction in the aqueous waste load may be made by replacing wet scrubbing systems with baghouses, or alternatively, by placing cyclone dust collectors upstream of wet scrubbers. This approach is feasible because baghouses have recently been improved in design to the point where operation and maintenance costs are not excessive, where solids collection efficiencies exceed those of wet scrubbers, and where operating temperature ranges have been extended with high-temperature media development. App. 1729.

Indeed, such dry dust collection systems provide an economic credit to the annual operating cost because of the recovery of material. (App. 1759.) Thus, the scrubbing of dust and fumes from crushing can be eliminated by the use of dust collection systems at the same time that an inert-atmosphere is applied. (Development Document, App. 1692, 1706, 1729, 1759.) Finally, any problems which might be associated with water uses related to the cleaning of storage vessels and other containers will be solved with the redefinition of process water. Supra. Although such waste streams will require treatment they will not come within the definition of process wastewater. The effluent limitation guideline of no-discharge of process wastewater is not in reference to these incidental waste streams.

(3) Total Recycle Technology is Both Available and Demonstrated.

Hooker asserts that the huge technological leap to total recycle has not been made in the phosphorus pentasulfide industry. This statement is a blatant admission by the industry that it is significantly behind in its efforts to treat for pollutants. Hooker's argument concerning



total recycle boils down to one contention, i.e., a problem with scaling or a build-up in the system. Hooker obviously cannot argue against the other steps in the total recycle, suggested as a means of reaching no-discharge, because the other steps in the system are so readily available and feasible. The lowering of the scrubber water rates with lime and the recycle of scrubber water are widely used methods of operation. (App. 1707, 1728, 1759.) The other steps in the total recycle technology are well documented. Lime or limestone neutralization of acid waste streams is standard practice in this industry. (App. 1677.) Limestone or lime are far and a way more economical than other neutralizing materials. (App. 1677.)

"It is readily apparent that lime treatment with excess lime not only neutralizes acidic wastewaters from the phosphate manufacturing industry, but also demineralizes most wastewaters by precipitating calcium salts. This then produces a solid waste which may be disposed of by land filling." (App. 1677.) The only portion of the recycle technology proposed in the regulations which is under contention here is the "recycle tank overflow back to the process." (App. 1751.)

"Lime treatment and sedimentation to neutralize and to remove phosphate, sulfite and sulfate would permit total recycle." (App. 1774.)

The technology suggested by the Development Document is that any materials that might be created by a scaling problem would ultimately be removed as a solid, not as a liquid. The integrity of the no-discharge limitation would be maintained.

If petitioners concern is the scaling problem from a build-up of the sulfates and sulfites from sulfur dioxide in the fumes (App. 1707), the answer is simple. As stated again and again throughout the Development Document, dry dust collectors are feasible, efficient, available to eliminate this scaling problem. (App. 1692, 1706, 1729, 1759.)

E. The New Source Performance Standards for Food Grade Sodium Tripolyphosphate and Food Grade Calcium Phosphate Will be Reconsidered.

The review of the record occasioned by the present litigation has revealed that a full data base may not have been available to the Agency as the basis of its determination of the new source performance standards for food grade sodium tripolyphosphate and food grade calcium phosphate. The Agency therefore intends to reconsider these standards.

F. EPA's Definition of Process Wastewater is Not Arbitrary. -

EPA's regulations define the term "process wastewater" to mean any water which comes into direct contact with or results from the production or use of raw material, etc. (40 C.F.R. §422.11.) This definition can be read to include leaks and spills, non-contact cooling water slightly contaminated, and rainwater runoff. It was not the Agency's intention to apply an overly broad regulation. The Development Document makes this intent clear: "It is recommended that non-contact cooling water be allowed to be discharged. Effluent limitations for this waste stream are expected to be covered in future studies. For the purposes of this report, process water is defined as any water



that comes into direct contact with any raw material, intermediate product, by-product, or gas or liquid that has accumulated such constituents." (App. 1652.) The intention was to assure that no contaminated, pollutant-laden streams whatever the source within a production facility would be discharged untreated. The Agency will expeditiously be proposing a clarifying amendment which will exclude such sporadic wastes from the "no-discharge" limitation but will assure that no pollutant-laden streams, whether or not they are directly identifiable as process wastewater, will be discharged.

CONCLUSION

For the foregoing reasons, the challenged performance standards for new sources should be upheld. They were promulgated in compliance with Section 306 of the Act and are supported by the record.

Respectfully submitted,

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## A P P E N D I X A

### RELEVANT PARTS OF THE FEDERAL WATER POLLUTION CONTROL ACT OF 1972, 86 STAT. 816, 33 U.S.C. SEC. 1251 ET SEQ. THE SECTIONS OF THE ORIGINAL ACT ARE INDICATED IN THE MARGIN.

#### Section 101 § 1251. Congressional declaration of goals and policy.

(a) The objective of this chapter is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. In order to achieve this objective it is hereby declared that, consistent with the provisions of this chapter—

(1) it is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985;

(2) it is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983;

(3) it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited;

(4) it is the national policy that Federal financial assistance be provided to construct publicly owned waste treatment works;

(5) it is the national policy that areawide waste treatment management planning processes be developed and implemented to assure adequate control of sources of pollutants in each State; and

(6) it is the national policy that a major research and demonstration effort be made to develop technology necessary to eliminate the discharge of pollutants into the navigable waters, waters of the contiguous zone, and the oceans.

(b) It is the policy of the Congress to recognize, preserve, and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution, to plan the development and use (including restoration, preservation, and enhancement) of land and water resources, and to consult with the Administrator in the exercise of his authority under this chapter. It is further the policy of the Congress to support and aid research relating to the prevention, reduction, and elimination of pollution and to provide Federal technical services and financial aid to State and interstate agencies and municipalities in connection with the prevention, reduction, and elimination of pollution.

(c) It is further the policy of Congress that the President, acting through the Secretary of State and such national and international organizations as he determines appropriate, shall take such action as may be necessary to insure that to the fullest extent possible all foreign countries shall take meaningful action for the prevention, reduction, and elimination of pollution in their waters and in international waters and for the achievement of goals regarding the elimination of discharge of pollutants and the improvement of water quality to at least the same extent as the United States does under its laws.

(d) Except as otherwise expressly provided in this chapter, the Administrator of the Environmental Protection Agency (hereinafter in this chapter called "Administrator") shall administer this chapter.

(e) Public participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program established by the Administrator or any State under this chapter shall be provided for, encouraged, and assisted by the Administrator and the States. The Administrator, in cooperation with the States, shall develop and publish regulations specifying minimum guidelines for public participation in such processes.

(f) It is the national policy that to the maximum extent possible the procedures utilized for implementing this chapter shall encourage the drastic minimization of paperwork and interagency decision procedures, and the best use of available manpower and funds, so as to prevent needless duplication and unnecessary delays at all levels of government. (June 30, 1948, ch. 758, title I, § 101, as added Oct. 18, 1972, Pub. L. 92-500, § 2, 86 Stat. 816.)

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# Section 301

## § 1311. Effluent limitations.

### (a) Illegality of pollutant discharges except in compliance with law.

Except as in compliance with this section and sections 1312, 1316, 1317, 1328, 1342, and 1344 of this title, the discharge of any pollutant by any person shall be unlawful.

### (b) Timetable for achievement of objectives.

In order to carry out the objective of this chapter there shall be achieved—

(1) (A) not later than July 1, 1977, effluent limitations for point sources, other than publicly owned treatment works, (i) which shall require the application of the best practicable control technology currently available as defined by the Administrator pursuant to section 1314(b) of this title, or (ii) in the case of a discharge into a publicly owned treatment works which meets the requirements of subparagraph (B) of this paragraph, which shall require compliance with any applicable pretreatment requirements and any requirements under section 1317 of this title; and (B) for publicly owned treatment works in existence on July 1, 1977, or approved pursuant to section 1281 of this title prior to June 30, 1974 (for which construction must be completed within four years of approval), effluent limitations based upon secondary treatment as defined by the Administrator pursuant to section 1314(d) (1) of this title; or,

(C) not later than July 1, 1977, any more stringent limitation, including those necessary to meet water quality standards, treatment standards, or schedules of compliance, established pursuant to any State law or regulations (under authority preserved by section 1370 of this title) or any other Federal law or regulation, or required to implement any applicable water quality standard established pursuant to this chapter.

(2) (A) not later than July 1, 1983, effluent limitations for categories and classes of point sources, other than publicly owned treatment works, which (i) shall require application of the best available technology economically achievable for such category or class, which will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants, as determined in accordance with regulations issued by the Administrator pursuant to section 1314(b) (2) of this title, which such effluent limitations shall require the elimination of discharges of all pollutants if the Administrator finds, on the basis of information available to him (including information developed pursuant to section 1325 of this title), that such elimination is technologically and economically achievable for a category or class of point sources as determined in accordance with regulations issued by the Administrator pursuant to section 1314(b) (2) of this title, or (ii) in the

case of the introduction of a pollutant into a publicly owned treatment works which meets the requirements of subparagraph (B) of this paragraph, shall require compliance with any applicable pretreatment requirements and any other requirement under section 1317 of this title; and (B) not later than July 1, 1983, compliance by all publicly owned treatment works with the requirements set forth in section 1281(g) (2) (A) of this title.

### (c) Modification of timetable.

The Administrator may modify the requirements of subsection (b) (2) (A) of this section with respect to any point source for which a permit application is filed after July 1, 1977, upon a showing by the owner or operator of such point source satisfactory to the Administrator that such modified requirements (1) will represent the maximum use of technology within the economic capability of the owner or operator; and (2) will result in reasonable further progress toward the elimination of the discharge of pollutants.

### (d) Review and revision of effluent limitations.

Any effluent limitation required by paragraph (2) of subsection (b) of this section shall be reviewed at least every five years and, if appropriate, revised pursuant to the procedure established under such paragraph.

### (e) All point discharge source application of effluent limitations.

Effluent limitations established pursuant to this section or section 1312 of this title shall be applied to all point sources of discharge of pollutants in accordance with the provisions of this chapter.

### (f) Illegality of discharge of radiological, chemical, or biological warfare agents or high-level radioactive waste.

Notwithstanding any other provisions of this chapter it shall be unlawful to discharge any radiological, chemical, or biological warfare agent or high-level radioactive waste into the navigable waters. (June 30, 1948, ch. 758, title III, § 301, as added Oct. 18, 1972, Pub. L. 92-500, § 2, 86 Stat. 844.)

#### SECTION REFERRED TO IN OTHER SECTIONS

This section is referred to in sections 1255, 1292, 1312, 1313, 1314, 1319, 1325, 1326, 1341, 1342, 1365, 1367, 1369 of this title.



# Section

304

## § 1311. Information and guidelines.

### (a) Criteria development and publication.

(1) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall develop and publish, within one year after October 18, 1972 (and from time to time thereafter revise) criteria for water quality accurately reflecting the latest scientific knowledge (A) on the kind and extent of all identifiable effects on health and welfare including, but not limited to, plankton, fish, shellfish, wildlife, plant life, shorelines, beaches, esthetics, and recreation which may be expected from the presence of pollutants in any body of water, including ground water; (B) on the concentration and dispersal of pollutants, or their byproducts, through biological, physical, and chemical processes; and (C) on the effects of pollutants on biological community diversity, productivity, and stability, including information on the factors affecting rates of eutrophication and rates of organic and inorganic sedimentation for varying types of receiving waters.

(2) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall develop and publish, within one year after October 18, 1972 (and from time to time thereafter revise) information (A) on the factors necessary to restore and maintain the chemical, physical, and biological integrity of all navigable waters, ground waters, waters of the contiguous zone, and the oceans; (B) on the factors necessary for the protection and propagation of shellfish, fish, and wildlife for classes and categories of receiving waters and to allow recreational activities in and on the water; and (C) on the measurement and classification of water quality; and (D) for the purpose of section 1313 of this title, on and the identification of pollutants suitable for maximum daily load measurement correlated with the achievement of water quality objectives.

(3) Such criteria and information and revisions thereof shall be issued to the States and shall be published in the Federal Register and otherwise made available to the public.

### (b) Effluent limitation guidelines.

For the purpose of adopting or revising effluent limitations under this chapter the Administrator shall, after consultation with appropriate Federal

## Section 302

### § 1312. Water quality related effluent limitations.

(a) Whenever, in the judgment of the Administrator, discharges of pollutants from a point source or group of point sources, with the application of effluent limitations required under section 1311 (b) (2) of this title, would interfere with the attainment or maintenance of that water quality in a specific portion of the navigable waters which shall assure protection of public water supplies, agricultural and industrial uses, and the protection and propagation of a balanced population of shellfish, fish and wildlife, and allow recreational activities in and on the water, effluent limitations (including alternative effluent control strategies) for such point source or sources shall be established which can reasonably be expected to contribute to the attainment or maintenance of such water quality.

(b) (1) Prior to establishment of any effluent limitation pursuant to subsection (a) of this section, the Administrator shall issue notice of intent to establish such limitation and within ninety days of such notice hold a public hearing to determine the relationship of the economic and social costs of achieving any such limitation or limitations, including any economic or social dislocation in the affected community or communities, to the social and economic benefits to be obtained (including the attainment of the objective of this chapter) and to determine whether or not such effluent limitations can be implemented with available technology or other alternative control strategies.

(2) If a person affected by such limitation demonstrates at such hearing that (whether or not such technology or other alternative control strategies are available) there is no reasonable relationship between the economic and social costs and the benefits to be obtained (including attainment of the objective of this chapter), such limitation shall not become effective and the Administrator shall adjust such limitation as it applies to such person.

(c) The establishment of effluent limitations under this section shall not operate to delay the application of any effluent limitation established under section 1311 of this title. (June 30, 1948, ch. 758, title III, § 302, as added Oct. 18, 1972, Pub. L. 92-500, § 2, 86 Stat. 846.)

#### SECTION REFERRED TO IN OTHER SECTIONS

This section is referred to in sections 1292, 1311, 1313, 1319, 1341, 1342, 1365, 1367, 1369 of this title.

\* \* \* \* \*

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(continued)**

and State agencies and other interested persons, publish within one year of October 18, 1972, regulations, providing guidelines for effluent limitations, and, at least annually thereafter, revise, if appropriate, such regulations. Such regulations shall--

(1)(A) identify, in terms of amounts of constituents and chemical, physical, and biological characteristics of pollutants, the degree of effluent reduction attainable through the application of the best practicable control technology currently available for classes and categories of point sources (other than publicly owned treatment works); and

(B) specify factors to be taken into account in determining the control measures and practices to be applicable to point sources (other than publicly owned treatment works) within such categories or classes. Factors relating to the assessment of best practicable control technology currently available to comply with subsection (b)(1) of section 1311 of this title shall include consideration of the total cost of application of technology in relation to the effluent reduction benefits to be achieved from such application, and shall also take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, non-water quality environmental impact (including energy requirements), and such other factors as the Administrator deems appropriate;

(2)(A) identify, in terms of amounts of constituents and chemical, physical, and biological characteristics of pollutants, the degree of effluent reduction attainable through the application of the best control measures and practices achievable including treatment techniques, process and procedure innovations, operating methods, and other alternatives for classes and categories of point sources (other than publicly owned treatment works); and

(B) specify factors to be taken into account in determining the best measures and practices available to comply with subsection (b)(2) of section 1311 of this title to be applicable to any point source (other than publicly owned treatment works) within such categories or classes. Factors relating to the assessment of best available technology shall take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, the cost of achieving such effluent reduction, non-water quality environmental impact (including energy requirements), and such other factors as the Administrator deems appropriate; and

(3) identify control measures and practices available to eliminate the discharge of pollutants from categories and classes of point sources, taking into account the cost of achieving such elimination of the discharge of pollutants.

**(c) Pollution discharge elimination procedures.**

The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall issue to the States and appropriate water pollution control agencies within 270 days after October 18, 1972 (and from time to time

thereafter) information on the processes, procedures, or operating methods which result in the elimination or reduction of the discharge of pollutants to implement standards of performance under section 1316 of this title. Such information shall include technical and other data, including costs, as are available on alternative methods of elimination or reduction of the discharge of pollutants. Such information, and revisions thereof, shall be published in the Federal Register and otherwise shall be made available to the public.

**(d) Secondary treatment information; alternative waste treatment management techniques and systems.**

(1) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall publish within sixty days after October 18, 1972 (and from time to time thereafter) information, in terms of amounts of constituents and chemical, physical, and biological characteristics of pollutants, on the degree of effluent reduction attainable through the application of secondary treatment.

(2) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall publish within nine months after October 18, 1972 (and from time to time thereafter) information on alternative waste treatment management techniques and systems available to implement section 1281 of this title.

**(e) Identification and evaluation of nonpoint sources of pollution; processes, procedures, and methods to control pollution.**

The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall issue to appropriate Federal agencies, the State, water pollution control agencies, and agencies designated under section 1256 of this title, within one year after October 18, 1972 (and from time to time thereafter) information including (1) guidelines for identifying and evaluating the nature and extent of nonpoint sources of pollutants, and (2) processes, procedures, and methods to control pollution resulting from--

(A) agricultural and silvicultural activities, including runoff from fields and crop and forest lands;

(B) mining activities, including runoff and siltation from new, currently operating, and abandoned surface and underground mines;

(C) all construction activity, including runoff from the facilities resulting from such construction;

(D) the disposal of pollutants in wells or in subsurface excavations;

(E) salt water intrusion resulting from reductions of fresh water flow from any cause, including extraction of ground water, irrigation, obstruction, and diversion; and

(F) changes in the movement, flow, or circulation of any navigable waters or ground waters, including changes caused by the construction of dams, levees, channels, causeways, or flow diversion facilities.



Section  
304  
(continued)

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Such information and revisions thereof shall be published in the Federal Register and otherwise made available to the public.

(f) Guidelines for pretreatment of pollutants.

(1) For the purpose of assisting States in carrying out programs under section 1342 of this title, the Administrator shall publish, within one hundred and twenty days after October 18, 1972, and review at least annually thereafter and, if appropriate, revise guidelines for pretreatment of pollutants which he determines are not susceptible to treatment by publicly owned treatment works. Guidelines under this subsection shall be established to control and prevent the discharge into the navigable waters, the contiguous zone, or the ocean (either directly or through publicly owned treatment works) of any pollutant which interferes with, passes through, or otherwise is incompatible with such works.

(2) When publishing guidelines under this subsection, the Administrator shall designate the category or categories of treatment works to which the guidelines shall apply.

(g) Test procedures guidelines.

The Administrator shall, within one hundred and eighty days from October 18, 1972, promulgate guidelines establishing test procedures for the analysis of pollutants that shall include the factors which must be provided in any certification pursuant to section 1341 of this title or permit application pursuant to section 1342 of this title.

(h) Guidelines for monitoring, reporting, enforcement, funding, personnel, and manpower.

The Administrator shall (1) within sixty days after October 18, 1972, promulgate guidelines for the purpose of establishing uniform application forms and other minimum requirements for the acquisition of information from owners and operators of point-sources of discharge subject to any State program under section 1342 of this title, and (2) within sixty days from October 18, 1972, promulgate guidelines establishing the minimum procedural and other elements of any State program under section 1342 of this title, which shall include:

(A) monitoring requirements;

(B) reporting requirements (including procedures to make information available to the public);

(C) enforcement provisions; and

(D) funding, personnel qualifications, and manpower requirements (including a requirement that no board or body which approves permit applications or portions thereof shall include, as a member, any person who receives, or has during the previous two years received, a significant portion of his income directly or indirectly from permit holders or applicants for a permit).

(i) Restoration and enhancement of publicly owned fresh water lakes.

The Administrator shall, within 270 days after October 18, 1972 (and from time to time thereafter), issue such information on methods, procedures, and processes as may be appropriate to restore and enhance the quality of the Nation's publicly owned fresh water lakes.

(j) Agreements with Secretaries of Agriculture, Army, and Interior to provide maximum utilization of programs to achieve and maintain water quality; transfer of funds; authorization of appropriations.

(1) The Administrator shall, within six months from October 18, 1972, enter into agreements with the Secretary of Agriculture, the Secretary of the Army, and the Secretary of the Interior to provide for the maximum utilization of the appropriate programs authorized under other Federal law to be carried out by such Secretaries for the purpose of achieving and maintaining water quality through appropriate implementation of plans approved under section 1288 of this title.

(2) The Administrator, pursuant to any agreement under paragraph (1) of this subsection is authorized to transfer to the Secretary of Agriculture, the Secretary of the Army, or the Secretary of the Interior any funds appropriated under paragraph (3) of this subsection to supplement any funds otherwise appropriated to carry out appropriate programs authorized to be carried out by such Secretaries.

(3) There is authorized to be appropriated to carry out the provisions of this subsection, \$100,000,000 per fiscal year for the fiscal year ending June 30, 1973, and the fiscal year ending June 30, 1974 (June 30, 1948, ch. 758, title III, § 304, as added Oct. 18, 1972, Pub. L. 92-500, § 2, 86 Stat. 850.)

SECTION REFERRED TO IN OTHER SECTIONS

This section is referred to in sections 1255, 1311, 1313, 1315, 1342, 1369, 1374, 1376 of this title

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Section  
306

§ 1316. National standards of performance.

(a) Definitions.

For purposes of this section:

(1) The term "standard of performance" means a standard for the control of the discharge of pollutants which reflect the greatest degree of effluent reduction which the Administrator determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants.

(2) The term "new source" means any source, the construction of which is commenced after the publication of proposed regulations prescribing a standard of performance under this section which will be applicable to such source, if such standard is thereafter promulgated in accordance with this section.

## Section 306 (continued).

(3) The term "source" means any building, structure, facility, or installation from which there is or may be the discharge of pollutants.

(4) The term "owner or operator" means any person who owns, leases, operates, controls, or supervises a source.

(5) The term "construction" means any placement, assembly, or installation of facilities or equipment (including contractual obligations to purchase such facilities or equipment) at the premises where such equipment will be used, including preparation work at such premises.

(b) Categories of sources: Federal standards of performance for new sources.

(1)(A) The Administrator shall, within ninety days after October 18, 1972, publish (and from time to time thereafter shall revise) a list of categories of sources, which shall, at the minimum, include:

- pulp and paper mills;
- paperboard, builders paper and board mills;
- meat product and rendering processing;
- dairy product processing;
- crain mills;
- canned and preserved fruits and vegetables processing;
- canned and preserved seafood processing;
- sugar processing;
- textile mills;
- cement manufacturing;
- feedlots;
- electroplating;
- organic chemicals manufacturing;
- inorganic chemicals manufacturing;
- plastic and synthetic materials manufacturing;
- soap and detergent manufacturing;
- fertilizer manufacturing;
- petroleum refining;
- iron and steel manufacturing;
- nonferrous metals manufacturing;
- phosphate manufacturing;
- steam electric powerplants;
- ferroalloy manufacturing;
- leather tanning and finishing;
- glass and asbestos manufacturing;
- rubber processing; and
- timber products processing.

(B) As soon as practicable, but in no case more than one year, after a category of sources is included in a list under subparagraph (A) of this paragraph, the Administrator shall propose and publish regulations establishing Federal standards of performance for new sources within such category. The Administrator shall afford interested persons an opportunity for written comment on such proposed regulations. After considering such comments, he shall promulgate, within one hundred and twenty days after publication of such proposed regulations, such standards with such adjustments as he deems appropriate. The Administrator shall, from time to time, as technology and alternatives change, revise such standards following the procedure required by this subsection for promulgation of such standards. Standards of performance, or revisions thereof, shall become effective upon promulgation. In establishing or revising Federal standards of performance for new sources under this section, the Administrator

shall take into consideration the cost of achieving such effluent reduction, and any non-water quality environmental impact and energy requirements.

(2) The Administrator may distinguish among classes, types, and sizes within categories of new sources for the purpose of establishing such standards and shall consider the type of process employed (including whether batch or continuous).

(3) The provisions of this section shall apply to any new source owned or operated by the United States.

(c) State enforcement of standards of performance.

Each State may develop and submit to the Administrator a procedure under State law for applying and enforcing standards of performance for new sources located in such State. If the Administrator finds that the procedure and the law of any State require the application and enforcement of standards of performance to at least the same extent as required by this section, such State is authorized to apply and enforce such standards of performance (except with respect to new sources owned or operated by the United States).

(d) Protection from more stringent standards.

Notwithstanding any other provision of this chapter, any point source the construction of which is commenced after October 18, 1972, and which is so constructed as to meet all applicable standards of performance shall not be subject to any more stringent standard of performance during a ten-year period beginning on the date of completion of such construction or during the period of depreciation or amortization of such facility for the purposes of section 167 or 169 (or both) of Title 26, whichever period ends first.

(e) Illegality of operation of new sources in violation of applicable standards of performance.

After the effective date of standards of performance promulgated under this section, it shall be unlawful for any owner or operator of any new source to operate such source in violation of any standard of performance applicable to such source. (June 30, 1948, ch. 758, title III, § 306, as added Oct. 18, 1972, Pub. L. 92-500, § 2 86 Stat. 854.)

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## Section 501

### § 1361. Administration.

#### (a) Authority of Administrator to prescribe regulations.

The Administrator is authorized to prescribe such regulations as are necessary to carry out his functions under this chapter.

#### (b) Utilization of other agency officers and employees.

The Administrator, with the consent of the head of any other agency of the United States, may utilize such officers and employees of such agency as may be found necessary to assist in carrying out the purposes of this chapter.

\* \* \* \* \*

## Section 502

### § 1362. Definitions.

Except as otherwise specifically provided, when used in this chapter:

(1) The term "State water pollution control agency" means the State agency designated by the Governor having responsibility for enforcing State laws relating to the abatement of pollution.

(2) The term "interstate agency" means an agency of two or more States established by or pursuant to an agreement or compact approved by the Congress, or any other agency of two or more States, having substantial powers or duties pertaining to the control of pollution as determined and approved by the Administrator.

(3) The term "State" means a State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Trust Territory of the Pacific Islands.

(4) The term "municipality" means a city, town, borough, county, parish, district, association, or other public body created by or pursuant to State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 1288 of this title.

(5) The term "person" means an individual, corporation, partnership, association, State, municipality, commission, or political subdivision of a State, or any interstate body.

(6) The term "pollutant" means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. This term does not mean (A) "sewage from vessels" within the meaning of section 1322 of this title; or (B) water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil or gas production and disposed of in a well, if the well used either to facilitate production or for disposal purposes is approved by authority of the State in which the well is located, and if such State determines that such injection or disposal will not result in the degradation of ground or surface water resources.

(7) The term "navigable waters" means the waters of the United States, including the territorial seas.

(8) The term "territorial seas" means the belt of the seas measured from the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of three miles.

(9) The term "contiguous zone" means the entire zone established or to be established by the United States under article 24 of the Convention of the Territorial Sea and the Contiguous Zone.

(10) The term "ocean" means any portion of the high seas beyond the contiguous zone.

(11) The term "effluent limitation" means any restriction established by a State or the Administrator on quantities, rates, and concentrations of chemical,

physical, biological, and other constituents which are discharged from point sources into navigable waters, the waters of the contiguous zone, or the ocean, including schedules of compliance.

(12) The term "discharge of a pollutant" and the term "discharge of pollutants" each means (A) any addition of any pollutant to navigable waters from any point source, (B) any addition of any pollutant to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft.

(13) The term "toxic pollutant" means those pollutants, or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will, on the basis of information available to the Administrator, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring.

(14) The term "point source" means any discernible, confined and discrete conveyance including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.

(15) The term "biological monitoring" shall mean the determination of the effects on aquatic life, including accumulation of pollutants in tissue, in receiving waters due to the discharge of pollutants (A) by techniques and procedures, including sampling of organisms representative of appropriate levels of the food chain appropriate to the volume and the physical, chemical, and biological characteristics of the effluent, and (B) at appropriate frequencies and locations.

(16) The term "discharge" when used without qualification includes a discharge of a pollutant, and a discharge of pollutants.

(17) The term "schedule of compliance" means a schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with an effluent limitation, other limitation, prohibition, or standard.

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## Section 509

### § 1369. Administrative procedure and judicial review.

(a) (1) For purposes of obtaining information under section 1315 of this title, or carrying out section 1367(e) of this title, the Administrator may issue subpoenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents, and he may administer oaths. Except for effluent data, upon a showing satisfactory to the Administrator that such papers, books, documents, or information or particular part thereof, if made public, would divulge trade secrets or secret processes, the Administrator shall consider such record, report, or information or particular portion thereof confidential in accordance with the purposes of section 1905 of Title 18, except that such paper, book, document, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this chapter, or when relevant in any proceeding under this chapter. Witnesses summoned shall be paid the same fees and mileage that are paid witnesses in the courts of the United States. In case of contumacy or refusal to obey a subpoena served upon any person under this subsection, the district court of the United States for any district in which such person is found or resides or transacts business, upon application by the United States and after notice to such person, shall have jurisdiction to issue an order requiring such person to appear and give testimony before the Administrator, to appear and produce

papers, books, and documents before the Administrator, or both, and any failure to obey such order of the court may be punished by such court as a contempt thereof.

(2) The district courts of the United States are authorized, upon application by the Administrator, to issue subpoenas for attendance and testimony of witnesses and the production of relevant papers, books, and documents, for purposes of obtaining information under sections 1314(b) and (c) of this title. Any papers, books, documents, or other information or part thereof, obtained by reason of such a subpoena shall be subject to the same requirements as are provided in paragraph (1) of this subsection.

(b) (1) Review of the Administrator's action (A) in promulgating any standard of performance under section 1316 of this title, (B) in making any determination pursuant to section 1316(b) (1) (C) of this title, (C) in promulgating any effluent standard, prohibition, or treatment standard under section 1317 of this title, (D) in making any determination as to a State permit program submitted under section 1342(b) of this title, (E) in approving or promulgating any effluent limitation or other limitation under section 1311, 1312, or 1316 of this title, and (F) in issuing or denying any permit under section 1342 of this title, may be had by any interested person in the Circuit Court of Appeals of the United States for the Federal judicial district in which such person resides or transacts such business upon application by such person. Any such application shall be made within ninety days from the date of such determination, approval, promulgation, issuance or denial, or after such date only if such application is based solely on grounds which arose after such ninetieth day.

(2) Action of the Administrator with respect to which review could have been obtained under paragraph (1) of this subsection shall not be subject to judicial review in any civil or criminal proceeding for enforcement.

(c) In any judicial proceeding brought under subsection (b) of this section in which review is sought of a determination under this chapter required to be made on the record after notice and opportunity for hearing, if any party applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Administrator, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Administrator, in such manner and upon such terms and conditions as the court may deem proper. The Administrator may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken and he shall file such modified or new findings, and his recommendation, if any, for the modification or setting aside of his original determination, with the return of such additional evidence. (June 30, 1948, ch. 758, title V, § 509, as added Oct. 18, 1972, Pub. L. 92-500, § 2, 86 Stat. 891)



IN THE UNITED STATES COURT OF APPEALS  
FOR THE SECOND CIRCUIT

Nos. 74-1683, 74-1687

HOOKEE CHEMICALS AND PLASTICS CORPORATION,  
STAUFFER CHEMICAL COMPANY, AND MONSANTO COMPANY,

Petitioners

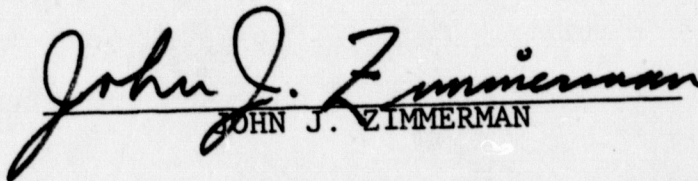
v.

RUSSELL E. TRAIN, ADMINISTRATOR OF THE  
ENVIRONMENTAL PROTECTION AGENCY,

Respondent

CERTIFICATE OF SERVICE

I certify that two reproduced copies of the Briefs  
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addressed, this 13th day of December, 1974, to: Douglas E.  
Kliever, Esquire, Cleary, Gottlieb, Steen & Hamilton, 1250  
Connecticut Avenue, N. W., Washington, D. C. 20036.

  
JOHN J. ZIMMERMAN